32. (Once Amended) The antibody or portion thereof of claim 31 wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

52. (Once Amended) The antibody or portion thereof of claim 51 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

53. (Once Amended) The antibody or portion thereof of claim 52 wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

76. (Once Amended) The antibody or portion thereof of claim 75 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

77. (Once Amended) The antibody or portion thereof of claim 76 wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

83. (Once Amended) A method of detecting Neutrokine-alpha protein comprising:

(a) contacting the Neutrokine-alpha protein with the antibody or portion thereof of claim 68; and

(b) detecting the Neutrokine-alpha protein.

91. (Once Amended) The method of claim 90 wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

97. (Once Amended) The antibody or portion thereof of claim 96 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

98. (Once Amended) The antibody or portion thereof of claim 97 wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

104. (Once Amended) A method of detecting Neutrokine-alpha protein comprising:

(a) contacting the Neutrokine-alpha protein with the antibody or portion thereof of claim 92; and

(b) detecting the Neutrokine-alpha protein.

113. (Once Amended) An isolated antibody or portion thereof that specifically binds to a protein consisting of a fragment of SEQ ID NO:2, wherein said fragment comprises an amino acid sequence of at least 30 contiguous amino acid residues of SEQ ID NO:2.

120. (Once Amended) The antibody or portion thereof of claim 119 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

121. (Once Amended) The antibody or portion thereof of claim 120 wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

101

127. (Once Amended) A method of detecting Neutrokine-alpha protein comprising:

C11

(a) contacting the Neutrokine-alpha protein with the antibody or portion thereof of claim 113; and

(b) detecting the Neutrokine-alpha protein.

120 119

146. (Once Amended) The antibody or portion thereof of claim 145 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

C12

121 120

147. (Once Amended) The antibody or portion thereof of claim 146, wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

127

153. (Once Amended) A method of detecting Neutrokine-alpha protein comprising:

C13

(a) contacting the Neutrokine-alpha protein with the antibody or portion thereof of claim 136; and

(b) detecting the Neutrokine-alpha protein.

141 140

167. (Once Amended) The antibody or portion thereof of claim 166 wherein the label is selected from the group consisting of:

C14

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

142 141

168. (Once Amended) The antibody or portion thereof of claim 167 wherein the label is a radioisotope selected from the group consisting of:

C14 Corel.

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

148

174. (Once Amended) A method of detecting Neutrokine-alpha protein comprising:

C15

(a) contacting the Neutrokine-alpha protein with the antibody or portion thereof of claim 136 162; and

(b) detecting the Neutrokine-alpha protein.

162 161

188. (Once Amended) The antibody or portion thereof of claim 187 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

C16

163 162

189. (Once Amended) The antibody or portion thereof of claim 188 wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

169

195. (Once Amended) A method of detecting Neutrokine-alpha protein comprising:

C17

(a) contacting the Neutrokine-alpha protein with the antibody or portion thereof of claim 183, and

157

(b) detecting the Neutrokine-alpha protein.

185

184

211. (Once Amended) The antibody or portion thereof of claim 210 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

C18

186

185

212. (Once Amended) The antibody or portion thereof of claim 211 wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

193

219. (Once Amended) A method of detecting Neutrokine-alpha protein comprising:

C19

(a) contacting the Neutrokine-alpha protein with the antibody or portion thereof of claim 204, and

178

(b) detecting the Neutrokine-alpha protein.

202

228. (Once Amended) An isolated antibody or portion thereof that specifically binds to a protein consisting of a fragment of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said fragment comprises an amino acid sequence of at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit Number 97768.

C20

208 207

235. (Once Amended) The antibody or portion thereof of claim 234 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

C21

209 208

236. (Once Amended) The antibody or portion thereof of claim 235 wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

215

242. (Once Amended) A method of detecting Neutrokine-alpha protein comprising:

C22

(a) contacting the Neutrokine-alpha protein with the antibody or portion thereof of claim 228; and

202

(b) detecting the Neutrokine-alpha protein.

Please add new claims 251-319 below:

224

251. (New) An isolated antibody or portion thereof that specifically binds to an isolated Neutrokine-alpha multimer comprising an amino acid sequence consisting of amino acids 134-285 of SEQ ID NO:2.

225 224

252. (New) The antibody or portion thereof of claim 251 which is a monoclonal antibody.

C23

226 224

253. (New) The antibody or portion thereof of claim 251 which is a polyclonal antibody.

254. (New) The antibody or portion thereof of claim 251 which is a Fab fragment.

255. (New) The antibody or portion thereof of claim 251 which is labeled.

256. (New) The antibody or portion thereof of claim 255 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

257. (New) The antibody or portion thereof of claim 256 wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

258. (New) A composition comprising the antibody or portion thereof of claim 251 and a carrier.

259. (New) An isolated cell that produces the antibody of claim 251.

260. (New) An isolated cell line that produces the antibody of claim 251.

261. (New) A hybridoma that produces the antibody of claim 251.

262. (New) A hybridoma that produces the antibody of claim 252.

263. (New) A method of detecting Neutrokine-alpha protein comprising:

(a) contacting the Neutrokine-alpha protein with the antibody or portion thereof of claim 251; and

(b) detecting the Neutrokine-alpha protein.

264. (New) The method of claim 263 wherein the Neutrokine-alpha protein is in a biological sample.

265. (New) The method of claim 263 wherein the Neutrokine-alpha protein is *in vivo*.

266. (New) The method of claim 263 wherein the antibody or portion thereof is a monoclonal antibody.

267. (New) The method of claim 263 wherein the antibody or portion thereof is a polyclonal antibody.

268. (New) The method of claim 263 wherein the antibody or portion thereof is a Fab fragment.

269. (New) The method of claim 263 wherein the antibody or portion thereof is labeled.

270. (New) The method of claim 269 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

271. (New) The method of claim 270 wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

245

272. (New) An isolated antibody or portion thereof that specifically binds to an isolated recombinant Neutrokine-alpha protein purified from a cell culture wherein the cells in said cell culture comprise a polynucleotide encoding amino acids 1-285 of SEQ ID NO:2 operably associated with a regulatory sequence that controls gene expression.

246 245

273. (New) The antibody or portion thereof of claim 272 wherein the cells in said cell culture are eukaryotic cells.

247 245

274. (New) The antibody or portion thereof of claim 272 wherein the cells in said cell culture are Sf9 cells.

248 245

275. (New) The antibody or portion thereof of claim 272 wherein the cells in said cell culture are *E. coli* cells.

C23 Cont'

249 245

276. (New) The antibody or portion thereof of claim 272 which is a monoclonal antibody.

250 245

277. (New) The antibody or portion thereof of claim 272 which is a polyclonal antibody.

251 245

278. (New) The antibody or portion thereof of claim 272 which is a Fab fragment.

252 245

279. (New) The antibody or portion thereof of claim 272 which is labeled.

253 252

280. (New) The antibody or portion thereof of claim 279 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

254 253

281. (New) The antibody or portion thereof of claim 280 wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

255 245

282. (New) A composition comprising the antibody or portion thereof of claim 272 and a carrier.

256 245

283. (New) An isolated cell that produces the antibody of claim 272.

257 245

284. (New) An isolated cell line that produces the antibody of claim 272.

C23 258 245

285. (New) A hybridoma that produces the antibody of claim 272.

GX 259 249

286. (New) A hybridoma that produces the antibody of claim 276.

260

287. (New) A method of detecting Neutrokine-alpha protein comprising:

(a) contacting the Neutrokine-alpha protein with the antibody or portion thereof of claim 272, 245 and

(b) detecting the Neutrokine-alpha protein.

261 260

288. (New) The method of claim 287 wherein the Neutrokine-alpha protein is in a biological sample.

262 260

289. (New) The method of claim 287 wherein the Neutrokine-alpha protein is *in vivo*.

263 260

290. (New) The method of claim 287 wherein the antibody or portion thereof is a monoclonal antibody.

264 260

291. (New) The method of claim 287 wherein the antibody or portion thereof is a polyclonal antibody.

265 260

292. (New) The method of claim 287 wherein the antibody or portion thereof is a Fab fragment.

266 260

293. (New) The method of claim 287 wherein the antibody or portion thereof is labeled.

267 266

294. (New) The method of claim 293 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

268 267

295. (New) The method of claim 294 wherein the label is a radioisotope selected from the group consisting of:

C23 Cont.

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

269

296. (New) An isolated antibody or portion thereof obtained from an animal immunized with an isolated recombinant Neutrokine-alpha protein purified from a cell culture wherein the cells in said cell culture comprise a polynucleotide encoding amino acids 1-285 of SEQ ID NO:2 operably associated with a regulatory sequence that controls gene expression, wherein said antibody or portion thereof specifically binds said Neutrokine-alpha protein.

270 269

297. (New) The antibody or portion thereof of claim 296 wherein the cells in said cell culture are eukaryotic cells.

271 269

298. (New) The antibody or portion thereof of claim 296 wherein the cells in said cell culture are Sf9 cells.

299. (New) The antibody or portion thereof of claim 296 wherein the cells in said cell culture are *E. coli* cells.

300. (New) The antibody or portion thereof of claim 296 which is a monoclonal antibody.

301. (New) The antibody or portion thereof of claim 296 which is a polyclonal antibody.

302. (New) The antibody or portion thereof of claim 296 which is a Fab fragment.

303. (New) The antibody or portion thereof of claim 296 which is labeled.

304. (New) The antibody or portion thereof of claim 303 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

305. (New) The antibody or portion thereof of claim 304 wherein the label is a radioisotope selected from the group consisting of:

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

306. (New) A composition comprising the antibody or portion thereof of claim 296 and a carrier.

307. (New) An isolated cell that produces the antibody of claim 296.

308. (New) An isolated cell line that produces the antibody of claim 296.

309. (New) A hybridoma that produces the antibody of claim 296.

310. (New) A hybridoma that produces the antibody of claim 300.

311. (New) A method of detecting Neutrokine-alpha protein comprising:

(a) contacting the Neutrokine-alpha protein with the antibody or portion thereof of claim 296; and

(b) detecting the Neutrokine-alpha protein.

312. (New) The method of claim 311 wherein the Neutrokine-alpha protein is in a biological sample.

313. (New) The method of claim 311 wherein the Neutrokine-alpha protein is *in vivo*.

C23 Cont

314. (New) The method of claim 311 wherein the antibody or portion thereof is a monoclonal antibody.

315. (New) The method of claim 311 wherein the antibody or portion thereof is a polyclonal antibody.

316. (New) The method of claim 311 wherein the antibody or portion thereof is a Fab fragment.

317. (New) The method of claim 311 wherein the antibody or portion thereof is labeled.

318. (New) The method of claim 317 wherein the label is selected from the group consisting of:

(a) an enzyme label;

(b) a radioisotope;

(c) a fluorescent label; and

(d) biotin.

292 290

319. (New) The method of claim 318 wherein the label is a radioisotope selected from the group consisting of:

C23 cncl.

(a) ^{125}I;

(b) ^{121}I;

(c) ^{131}I;

(d) ^{112}In; and

(e) ^{99m}Tc.